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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/785,290

02/23/2004

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AMSTER, ROTHSTEIN & EBENSTEIN LLP  
90 PARK AVENUE  
NEW YORK, NY 10016

EXAMINER

SHEWAREGED, BETELHEM

ART UNIT

PAPER NUMBER

1774

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/785,290

Applicant(s)

BARCOCK ET AL.

Examiner

Betelhem Shewareged

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) .  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's response along with the Request for Continued Examination (RCE) filed on 01/10/2006 has been fully considered. Claim 14 is added and claims 1-14 are pending.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 1, the limitation of "the protective layer **is not** an image recording layer" is not supported by the specification or the original claims because even though the original claims and the specification refer to both "protective layer" and "image recording layer" as two different elements, there is nothing in the specification or in the original claims that expressly discloses or recites that the protective layer **is not** an image recording layer.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohbayashi et al. (US 6,492,005 B1) in view of Farooq et al. (US 6,703,112 B1).

6. Ohbayashi discloses an ink jet recording sheet comprising a support and an ink absorptive layer on the support (abstract). The ink absorptive layer comprises boric acid (col. 15, line 51), metal ion compound (col. 18, line 10), and organic sulfur compound (col. 17, lines 14-31). The ink absorptive layer further comprises a binder (col. 13, line 61), antifoaming agents (col. 16, line 32), light stabilizers such as UV ray absorbers (col. 16, line 20), and/or hardeners (col. 15, line 28). The ink absorptive layer may be comprised of two or more layers (col. 17, line 1), and the more than two ink absorptive layers are equivalent to the claimed protective layer, dye fixing layer and ink absorbing layer. Ohbayashi does not teach an organometallic ion compound.

7. Farooq teaches an ink jet coating composition to be provided on a support, wherein the composition comprises organometallic multivalent salt (col. 4, line 58 thru col. 6, line 56) and pigment drying agents such as aromatic carboxylic acid containing sulfonic acid group attached to the aromatic ring (col. 8, lines 32-50).

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8. Ohbayashi and Farooq are analogous art because they are from the same field of endeavor that is the ink jet recording art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the organometallic ion of Farooq with the invention of Ohbayashi so as to take care of the pigment management function and to control the smudgeness and drying of the film (col. 3, line 25 of Farooq). Furthermore, the use of aromatic carboxylic acids along with metal ions is well known in the ink jet recording art in order to serve as drying agents for ink jet receptor media (col. 8, line 17).

9. Farooq does not disclose the claimed ratio of metal ion compound to organic sulfur compound. The experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the ratio of metal ion compound to organic sulfur compound in order to improve light fastness and minimize bleeding (col. 17, line 4 and col. 18, line 4 of Ohbayashi). A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

### ***Response to Arguments***

10. Applicant's argument is based on that Ohbayashi does not teach a protective layer in accordance with the present invention that is deposited on an image recording layer, as claimed. This argument is not persuasive for the following reasons. Even

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though the original claims and the specification refer to both "protective layer" and "image recording layer" as two different elements, there is nothing in the specification or in the original claims that expressly discloses or recites that the protective layer **is not** an image recording layer, thus the limitation of "the protective layer **is not** an image recording layer" is not given a patentable weight. Furthermore, the top layer of the more than two ink absorptive layers of Ohbayashi in combination with Farooq comprises the claimed components of the claimed protective layer, thus the top layer is equivalent to the claimed protective layer.

11. For the above reasons, claims 1-12 stand rejected, and claims 13 and 14 are also included in the rejection.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Fri. 8:00AM-4:30PM.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B.S.  
January 19, 2007.

  
BETELHEM STEWARAGED  
PRIMARY EXAMINER